RECEIVED
OCT 05 2021
Division of Air Quality

Bunting & Murray Construction Corporation
Site Work • Utility Construction

APC-2022/0024

Date: September 30, 2021

To: DNREC Division of Air Quality

From: Doug Brown, CFO

Enclosed are the required documents and two checks for the required Permit Fee and Advertising Fee. This machine is an integral part of our overall operations, and we would appreciate an expedited review of this application.

Below are expected job locations for its use.

Morbark 3800 XL

Bunting & Murray Construction Corp Job Sites where grinder is expected to be used:

1. The Estuary
    a. 35717 Farm House Ln, Frankford, DE, 19945
    b. TM&P: 134-19.00-105.05
2. Coastal Villages
    a. Selbyville, DE – N of Lighthouse Rd, E of Polly Branch, W of Hudson, SE of Roxana Rd
    b. TM&P: 5-33-17.00-71.00
3. Creek Haven
    a. Baltimore Hundred, Selbyville, DE
    b. TM&P: 533-16.00-81.01
4. Selbyville Town Village/ Atlantic Lakes
    a. Lighthouse & Hudson Rd, Selbyville, DE
    b. TM&P: 5-33-17.00 170.00
5. Bunting and Murray Construction Corp Yard
    a. 32924 Lighthouse Rd, Selbyville DE
    b. TM&P: 5-33-18.00 47.01
6. Marlin Chase – COASTAL AREA
    a. Baltimore Hundred, DE
    b. TM&P: 1-34-9.00-21.00 thru 21.05 / 1227.00 thru 1269.00

Administrative Information

One original and one copy of All Application Forms Should Be Mailed To:
Division of Air Quality
100 West Water Street, Suite 6A
Dover, DE 19904

All Checks Should Be Made Payable To:
State of Delaware

Company and Site Information

1.	Company Name: **Bunting & Murray Construction Corporation**		
2.	Company Mailing Address: **32924 Lighthouse Rd**		
	City: **Selbyville**	State: **DE**	Zip Code: **19975**
3.	Site Name: **Bunting & Murray Construction Selbyville DE**		
4.	Site Mailing Address: **Same as Co Address** *(if different from above)*		
	City:	State:	Zip Code:
5.	Physical Location of Site: **Same as Co Address** *(if different from above)*		
	City:	State:	Zip Code:
6.	Site Billing Address: **Same as Co Address** *(if different from above)*		
	City:	State:	Zip Code:
7.	Air Quality Management Facility ID Number: **1000500169**		
8.	Site NAICS Code): **237110 / 237310 / 238910** *(list all that apply*		
9.	Site SIC Code: **1623 / 1611 / 1629** *(list all that apply)*		
10.	Site Location Coordinates:	Latitude: 38.465375711844196 ° ' "	
		Longitude: -75.15572567574955 ° ' "	
11.	Is the Facility New or Existing?	☐ NEW	☒ EXISTING
If the Facility is an Existing Facility, Complete the Rest of Question 11. If Not, Proceed to Question 12.			
11.1.	Does the Facility Have Active Air Permits?	☒ YES	☐ NO
12.	Is this Application For New Equipment or a Modification to Existing Equipment? ☒ New Equipment ☐ Modification of Existing Equipment ☐ Other (Specify):		
If the application is for the modification of existing equipment, complete the rest of Question 12. If not, proceed to Question 13.			

Company and Site Information

12.1. Does the Equipment Have an Active Air Permit? ☐ YES ☐ NO

If the equipment has an active air permit, complete the rest of Question 12. If not, proceed to Question 13.

12.2. Permit Number of Existing Equipment:

13. Status of Equipment Being Applied For:
☒ Natural Minor Source
☐ Synthetic Minor Source
☐ Major Source
☐ Federally Enforceable Restrictions

14. Facility Status: ☒ Natural Minor Facility ☐ Synthetic Minor Facility ☐ Major Facility

If the facility is a Major Source, complete the rest of Question 14. If not, proceed to Question 15.

14.1. Responsible Official Name:

14.2. Responsible Official Title:

Contact Information

15. Name of Owner or Facility Manager: **Bunting & Murray COnstruction Corporation**

16. Title of Owner or Facility Manager: **NA**

17. Permit Contact Name: **Doug Brown**

18. Permit Contact Title: **CFO**

19. Permit Contact Telephone Number: **3028642387**

20. Permit Contact Fax Number: **NA**

21. Permit Contact E-Mail Address: **doug@buntingandmurray.com**

22. Billing Contact Name: **Doug Brown**

23. Billing Contact Title: **CFO**

24. Billing Contact Telephone Number: **3028642387**

25. Billing Contact Fax Number: **NA**

26. Billing Contact E-Mail Address: **doug@buntingandmurray.com**

Proposed Construction and Operating Schedule

27. When Will the Proposed Construction/Installation/Modification Occur: 10/1/2021

28. Proposed Operating Schedule: **8** hours/day **5** days/week **48+/-** weeks/year

28.1. Is There Any Additional Information Regarding the Operating Schedule? ☒ YES ☐ NO

If YES, complete the rest of Question 28. If NO, proceed to Question 29.

Proposed Construction and Operating Schedule

28.2. Describe the Additional Information: **See Job List and Location on separate attachment**

Coastal Zone Information

29. Is the Facility Located in the Coastal Zone? ☐ YES ☒ NO

If the facility is located in the Coastal Zone complete the rest of Question 29. If not, proceed to Question 30.

29.1. Is a Coastal Zone Permit Required for Construction or Operation of the Source Being Applied for? ☐ YES ☐ NO

Attach a copy of the Coastal Zone Determination if it has not been previously submitted

If a Coastal Zone Permit is required complete the rest of Question 29. If not, proceed to Question 30.

29.2. Has a Coastal Zone Permit Been Issued? ☐ YES ☐ NO

Attach a copy of the Coastal Zone Permit if it has not been previously submitted

Local Zoning Information

30. Parcel Zoning: **533-18.00-47.01 AR-1 / C-1**

Attach Proof of Local Zoning if it has not been previously submitted

Application Information

31. Is the Appropriate Application Fee Attached? ☒ YES ☐ NO

32. Is the Advertising Fee Attached? ☒ YES ☐ NO

For help determining your application and advertising fees see:
http://www.dnrec.state.de.us/DNREC2000/Library/Fees/DE%20Permit%20Fees.htm

Attach the appropriate fees. Note that your Application will not be considered complete if the appropriate fees are not included.

33. Is a Cover Letter Describing the Process Attached? ☒ YES ☐ NO

Attach a brief cover letter describing your Application.

If the Facility is a New Facility complete Question 34. If not, proceed to Question35.

34. Is a Copy of the Applicant Background Information Questionnaire on Record at the Department? ☐ YES ☐ NO

If NO, complete the rest of Question 34. If YES, process to Question 35.

34.1 Is a Copy of the Applicant Background Information Questionnaire Attached? ☒ YES ☐ NO

For a copy of the Applicant Background Information Questionnaire see
http://www.dnrec.delaware.gov/services/Documents/Chapter79Form.pdf

Attach a copy of the Applicant Background Information Questionnaire if applicable.

35. Check Which Application Forms are Attached:

Application Information

☒ AQM-1	☐ AQM-3.4	☐ AQM-3.9	☐ AQM-3.14	☐ AQM-4.4	☐ AQM-4.9	☐ AQM-6
☐ AQM-2	☐ AQM-3.5	☐ AQM-3.10	☐ AQM-3.15	☐ AQM-4.5	☐ AQM-4.10	
☐ AQM-3.1	☐ AQM-3.6	☐ AQM-3.11	☐ AQM-4.1	☐ AQM-4.6	☐ AQM-4.11	
☐ AQM-3.2	☐ AQM-3.7	☐ AQM-3.12	☐ AQM-4.2	☐ AQM-4.7	☐ AQM-4.12	
☒ AQM-3.3	☐ AQM-3.8	☐ AQM-3.13	☐ AQM-4.3	☐ AQM-4.8	☒ AQM-5	

36. Check Which Documents are Attached:

- ☐ Coastal Zone Determination
- ☐ Coastal Zone Permit
- ☒ Proof of Local Zoning
- ☒ Application Fee
- ☒ Advertising Fee
- ☒ Applicant Background Information Questionnaire
- ☐ Claim of Confidentiality
- ☒ Manufacturer Specification(s)
- ☐ Material Safety Data Sheets (MSDSs)
- ☐ Supporting Calculations
- ☒ Descriptive Cover Letter
- ☐ Other (Specify):

Confidentiality Information

37. Do You Consider Any of the Information Submitted With this Application Confidential? ☐ YES ☒ NO

For help on how to submit a confidentiality claim see
http://regulations.delaware.gov/register/december2011/final/15%20DE%20Reg%20864%2012-01-11.htm

If a Claim of Confidentiality is made it MUST meet the requirements of Section 6 of DNREC's Freedom of Information ("FOIA") Regulation at the time the Application is submitted.

Signature Block

I, the undersigned, hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all of its attachments as to the truth, accuracy, and completeness of this information. I certify based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete. By signing this form, I certify that I have not changed, altered, or deleted any portions of this application. I acknowledge that I cannot commence construction, alteration, modification or initiate operation until I receive written approval (i.e. permit, registration, or exemption letter) from the Department. I acknowledge that I may be required to perform testing of the equipment to receive construction or operation approval, and that if I do not receive approval to construct or operate that I may appeal the decision.

Jay C. Murray
Owner or Operator

9/27/21
Date

Jay C Murray Pres
Signature of Owner or Operator

One Original and One Copy of All Application Forms Should Be Mailed To:
Division of Air Quality
100 W. Water Street, Suite 6A
Dover, Delaware 19904

All Checks Should Be Made Payable To:
State of Delaware

Emissions Information Application

If you are using this form electronically, press F1 at any time for help

Process Information	
1.	Number of Individual Pieces of Process Equipment in Process: **1**
2.	Number of Individual Control Devices in Process: **0**

Emissions Information for First Emission Point/Stack

3. Emission Point Name: **Morbark 3800**

4. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack: **855210**

5. Pollutant Emissions – SEE Attached Manufacturer Specs + Calculations

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

	Pollutant Name (Specify VOCs and HAPs Individually in 5.10 through 5.18)	CAS Number (Not required for 5.1 through 5.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
5.1.	Particulate Matter (PM)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.2.	PM_{10}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.3.	$PM_{2.5}$		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.4.	Sulfur Oxides (SO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.5.	Nitrogen Oxides (NO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.6.	Carbon Monoxide (CO)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.7.	Total Volatile Organic Compounds (VOCs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.8.	Total Hazardous Air Pollutants (HAPs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year

See Attached

Emissions Information for First Emission Point/Stack					
5.9. CO_2		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.10. CO_{2e}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.11.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.12.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.13.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.14.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.15.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
6. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above: See Attached					
Attach the Basis of Determination or Calculations for each Emission Rate provided above.					

Emissions Information for Second Emission Point/Stack N/A					
7. Emission Point Name:					
8. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:					
9. Pollutant Emissions					
If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.					
Pollutant Name (Specify VOCs and HAPs Individually in 9.10 through 9.18)	CAS Number (Not required for 9.1 through 9.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
9.1. Particulate Matter (PM)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.2. PM_{10}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.3. $PM_{2.5}$		**lbs/hour**	**lbs/hour**	tons/year	tons/year

N/A

Emissions Information for Second Emission Point/Stack

9.4.	Sulfur Oxides (SO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.5.	Nitrogen Oxides (NO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.6.	Carbon Monoxide (CO)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.7.	Total Volatile Organic Compounds (VOCs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.8.	Total Hazardous Air Pollutants (HAPs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.9.	CO_2		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.10.	CO_{2e}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.11.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.13.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.14.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.15.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

10. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

Emissions Information for Third Emission Point/Stack

11. Emission Point Name:

12. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:

13. Pollutant Emissions

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

N/A

Emissions Information for Third Emission Point/Stack

	Pollutant Name (Specify VOCs and HAPs Individually in 13.10 through 13.18)	CAS Number (Not required for 13.1 through 13.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
13.1.	Particulate Matter (PM)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.2.	PM_{10}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.3.	$PM_{2.5}$		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.4.	Sulfur Oxides (SO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.5.	Nitrogen Oxides (NO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.6.	Carbon Monoxide (CO)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.7.	Total Volatile Organic Compounds (VOCs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.8.	Total Hazardous Air Pollutants (HAPs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.9.	CO_2		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.10.	CO_{2e}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.11.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.13.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.14.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.15.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

14. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

N/A

Emissions Information for Fourth Emission Point/Stack

15. Emission Point Name:

16. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:

17. Pollutant Emissions

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

	Pollutant Name (Specify VOCs and HAPs Individually in 17.10 through 17.18)	CAS Number (Not required for 17.1 through 17.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
17.1.	Particulate Matter (PM)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.2.	PM_{10}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.3.	$PM_{2.5}$		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.4.	Sulfur Oxides (SO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.5.	Nitrogen Oxides (NO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.6.	Carbon Monoxide (CO)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.7.	Volatile Organic Compounds (VOCs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.8.	Total Hazardous Air Pollutants (HAPs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.9.	CO_2		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.10.	CO_{2e}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.11.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.13.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.14.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.15.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

Emissions Information for Fourth Emission Point/Stack

18. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

If there are more than four Emission Points/Stacks, attach additional copies of this form as needed.

Overall Process Emissions

see Attached - only (1)

19. Pollutant Emissions

If more than 15 pollutants are emitted from this Process, attach additional copies of this page as needed.

	Pollutant Name (Specify VOCs and HAPs Individually in 19.10 through 19.18)	CAS Number (Not required for 19.1 through 19.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
19.1.	Particulate Matter (PM)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.2.	PM_{10}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.3.	$PM_{2.5}$		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.4.	Sulfur Oxides (SO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.5.	Nitrogen Oxides (NO_x)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.6.	Carbon Monoxide (CO)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.7.	Total Volatile Organic Compounds (VOCs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.8.	Total Hazardous Air Pollutants (HAPs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.9.	CO_2		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.10.	CO_{2e}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

Overall Process Emissions

19.13.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.14.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.15.		**lbs/hour**	**lbs/hour**	tons/year	tons/year

20. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

Minor New Source Review Information

21. Does the Process Have the Potential to Emit More Than Five Tons Per Year of Any Pollutant? ☐ YES ☒ NO

22. Is the Source New or Existing? ☐ NEW ☒ EXISTING
See Question 11 of AQM-1

If the Process has the Potential to Emit more than five tons per year of any pollutant, and is a New Source, a Control Technology Analysis pursuant to Regulation No. 1125 Section 4 must be conducted and attached to this application.

Major New Source Review Information

23. Does the Process Have the Potential to Emit More Than the Significance Level for Any Pollutant? *(Check All That Apply)*

- ☐ Greater Than 25 Tons Per Year of Particulate Matter (PM)
- ☐ Greater Than 15 Tons Per Year of PM_{10}
- ☐ Greater Than 10 Tons Per Year of $PM_{2.5}$
- ☐ Greater Than 40 Tons Per Year of Sulfur Dioxide(SO_2)
- ☐ Greater Than 25 Tons Per Year of Nitrogen Oxides (NO_X) in New Castle and Kent County
- ☐ Greater Than 100 Tons Per Year of Nitrogen Oxides (NO_X) in Sussex County
- ☐ Greater Than 100 Tons Per Year of Carbon Monoxide (CO)
- ☐ Greater Than 25 Tons Per Year of Total Volatile Organic Compounds (VOCs) in New Castle and Kent County
- ☐ Greater Than 50 Tons Per Year of Total Volatile Organic Compounds (VOCs) in Sussex County
- ☐ Greater Than 75,000 Tons Per Year of Equivalent Carbon Dioxide (CO_{2e})

If the Process has the Potential to Emit greater than any of the amounts listed above 7 DE Admin. Code 1125 Sections 2 and/or 3 apply. Contact the Department at (302) 323-4542 or (302) 739-9402 for additional information

Additional Information

24. Is There Any Additional Information Pertinent to this Application? ☒ YES ☐ NO

If YES, complete the rest of Question 24.

24.1. Describe: **See attached Manufacturer's equipment specifications**

CATERPILLAR

Engine Emissions Data

For Emissions / Certification feedback and questions, please submit a ticket via our ERC Request Portal

This emission data is Caterpillar's best estimate for this rating. If actual emissions are required then an emission test needs to be run on your engine.

Serial Number (Machine)	
Serial Number (Engine)	**WRH08650**
Sales Model	C18
Regulatory Build Date	13-APR-2016
As Shipped Data	
Engine Arrangement Number	3591886
Certification Arrangement	3611891
Test Spec Number	0K4936
Regulatory Status	IMO Compliant
Regulatory Status	EPA / ARB Flex (Part 1039)
EPA Family Code	ACPXL106.T2E
EPA Emissions Level	EPA TIER 2
As-Shipped Flash File	4691638
CORR FL Power at RPM	765 HP (570.5 KW)2100 RPM
Advertised Power	765 HP 2,100RPM
Total Displacement	18.1 L

Disclaimer: The information provided has been compiled from third party sources and is accurate to the best of Caterpillar's knowledge. However, Caterpillar cannot guarantee the accuracy, completeness, or validity of the information and is not liable for any errors or omissions contained therein. All information provided should be independently verified and confirmed, including by examining the emissions label located on the engine.

Need emission replacement label? Click here!

Caterpillar Confidential: **Green**
Content Owner: Commercial Processes Division
Web Master(s): PSG Web Based Systems Support
Current Date: 9/28/2021, 1:22:09 PM

Morbark 3800XL

CAT C18 Engine in 3800XL Morbark Grinder

California Environmental Protection Agency AIR RESOURCES BOARD	CATERPILLAR INC.	EXECUTIVE ORDER U-R-001-0387 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	ACPXL106.T2E	84.7	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter and Engine Control Module	Generator

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
KW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
		CERT	--	--	6.2	1.9	0.16	--	--	--

(MAX) Limits

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 21 day of October 2009.

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Template

ATTACHMENT 1 of 5

U-R-001-0387
12/22/10

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACPXL106.T2E	Cert Test 1	C175-16	4422 @ 1800	935.8	1511.5	12902.4 @	NA	NA	EM,DI,TA
ACPXL106.T2E	Cert Test 2	3512C	2500@1900	703.7	890.2	7390@1400	712.4	664	EM,DI,TC,ECM
ACPXL106.T2E	1	3512C	2500@1900	881	689	7388@1400	690	650	EM,DI,TC,ECM
ACPXL106.T2E	2	3512C	1502@1800	523	432	5255@1500	515	520	EM,DI,TC,ECM
ACPXL106.T2E	3	3512C	2350@1900	828	647	6945@1400	653	615	EM,DI,TC,ECM
ACPXL106.T2E	4	3512C	2250@1900	787	615	6651@1400	626	590	EM,DI,TC,ECM
ACPXL106.T2E	5	3512C	2150@1900	751	587	6354@1400	602	567	EM,DI,TC,ECM
ACPXL106.T2E	6	3512C	2250@1900	784	613	6314@1400	599	564	EM,DI,TC,ECM
ACPXL106.T2E	7	3512C	2150@1900	751	587	6034@1400	575	542	EM,DI,TC,ECM
ACPXL106.T2E	8	3512C	1250@1200	419	519	5876@900	551	334	EM,DI,TC,ECM
ACPXL106.T2E	9	3512C	1476@1200	495	613	6935@900	649	393	EM,DI,TC,ECM
ACPXL106.T2E	10	3512C	2500@1900	703.7	890.2	7390@1400	712.4	664	EM,DI,TC,ECM
ACPXL106.T2E	11	3512C	2250@1900	637.3	806.2	6656@1400	652.8	608.5	EM,DI,TC,ECM
ACPXL106.T2E	12	3512C	2250@1900	637.3	806.2	6221@1400	620.9	578.7	EM,DI,TC,ECM
ACPXL106.T2E	13	3508C	900@1200	568	306	4230@900	630	254	EM,DI,TC,ECM
ACPXL106.T2E	14	3512C	1476@1200	602	486	6455@1200	NA	NA	EM,DI,TC,ECM
ACPXL106.T2E	15	3516C	2150@1200	690	743	9403@1200	NA	NA	EM,DI,TC,ECM
ACPXL106.T2E	16	3516C	1855@1200	589.8	635	8113@1200	NA	NA	EM,DI,TC,ECM
ACPXL106.T2E	17	C175-16	4034 @ 1800	837	1351.9	11770.3 @	NA	NA	EM, DI, TA
ACPXL106.T2E	18	C175-16	3717 @ 1800	764.7	1235.2	10845.4 @	NA	NA	EM, DI, TA
ACPXL106.T2E	19	C175-16	2588 @ 1200	759.8	811.7	15363.7 @	NA	NA	EM, DI, TA
ACPXL106.T2E	20	C15	787@1800	423	256.2	NA	NA	NA	EM, DI, TC,
ACPXL106.T2E	21	C18	861@1800	479	289.7	NA	NA	NA	EM, DI, TC,
ACPXL106.T2E	22	C18	923@1800	510	309	NA	NA	NA	EM, DI, TC,
ACPXL106.T2E	23	C18	765@2100	375	264.7	2578@1400	484	227.9	EM, DI, TC,
ACPXL106.T2E	24	C18	800@2100	389	274.5	2696@1400	503	236.9	EM, DI, TC,
ACPXL106.T2E	25	C27	1214@1800	332	401.5	NA	NA	NA	EM, DI, TC,
ACPXL106.T2E	26	C27	1141@1800	311	376.9	NA	NA	NA	EM, DI, TC,

PERFORMANCE DATA [AT400240]

(AT400240)-ENGINE (BAA126422A)-CEM

OCTOBER 01, 2021

For Help Desk Phone Numbers Click here

Perf No: DM7701 **Change Level:** 02

General | Heat Rejection | Emissions | Regulatory | Altitude Derate | Cross Reference | Perf Param Ref

View PDF

SALES MODEL:	C18	**COMBUSTION:**	DIRECT INJECTION
BRAND:	CAT	**ENGINE SPEED (RPM):**	2,100
ENGINE POWER (BHP):	765	**PEAK TORQUE SPEED (RPM):**	1,400
PEAK TORQUE (FT-LB):	2,577.8	**TORQUE RISE (%):**	34
COMPRESSION RATIO:	16.3	**ASPIRATION:**	TA
RATING LEVEL:	INDUSTRIAL D	**AFTERCOOLER TYPE:**	ATAAC
PUMP QUANTITY:	1	**AFTERCOOLER CIRCUIT TYPE:**	JW+OC, AC
FUEL TYPE:	DIESEL	**INLET MANIFOLD AIR TEMP (F):**	120
MANIFOLD TYPE:	DRY	**JACKET WATER TEMP (F):**	210.2
GOVERNOR TYPE:	ELEC	**TURBO CONFIGURATION:**	PARALLEL
CAMSHAFT TYPE:	STANDARD	**TURBO QUANTITY:**	2
IGNITION TYPE:	CI	**TURBOCHARGER MODEL:**	S310S089-1.00
INJECTOR TYPE:	EUI	**CERTIFICATION YEAR:**	2006
REF EXH STACK DIAMETER (IN):	6	**PISTON SPD @ RATED ENG SPD (FT/MIN):**	2,521.7
MAX OPERATING ALTITUDE (FT):	8,858		

INDUSTRY	SUB INDUSTRY	APPLICATION
INDUSTRIAL	GENERAL INDUSTRIAL	INDUSTRIAL
INDUSTRIAL	MATERIAL HANDLING	INDUSTRIAL
INDUSTRIAL	CONSTRUCTION	INDUSTRIAL
OIL AND GAS	LAND DRILLING	INDUSTRIAL
INDUSTRIAL	AGRICULTURE	INDUSTRIAL
INDUSTRIAL	MINING	INDUSTRIAL
OIL AND GAS	LAND PRODUCTION	INDUSTRIAL
INDUSTRIAL	FORESTRY	INDUSTRIAL

General Performance Data Top

ENGINE SPEED	ENGINE POWER	ENGINE TORQUE	BRAKE MEAN EFF PRES (BMEP)	BRAKE SPEC FUEL CONSUMPTN (BSFC)	VOL FUEL CONSUMPTN (VFC)
RPM	BHP	LB-FT	PSI	LB/BHP-HR	GAL/HR
2,100	765	1,913	261	0.344	37.1
2,000	765	2,009	274	0.338	36.4
1,900	765	2,115	288	0.332	35.9
1,800	765	2,232	304	0.330	35.5
1,700	757	2,338	319	0.329	35.1
1,600	740	2,431	331	0.328	34.3
1,500	718	2,514	343	0.328	33.2
1,400	687	2,578	351	0.329	31.8
1,300	630	2,545	347	0.327	29.1
1,200	503	2,200	300	0.329	23.3
1,100	421	2,009	274	0.333	19.7

ENGINE SPEED	ENGINE POWER	INLET MFLD PRES	INLET MFLD TEMP	EXH MFLD TEMP	EXH MFLD PRES	ENGINE OUTLET TEMP	COMPRESSOR OUTLET PRES	COMPRESSOR OUTLET TEMP
RPM	BHP	IN-HG	DEG F	DEG F	IN-HG	DEG F	IN-HG	DEG F
2,100	765	61.0	120.5	1,150.7	63.6	855.8	66	388.0
2,000	765	61.4	121.0	1,155.9	60.5	866.4	66	383.6
1,900	765	61.6	116.7	1,162.2	57.4	876.8	66	378.8

ENGINE SPEED	ENGINE POWER	INLET MFLD PRES	INLET MFLD TEMP	EXH MFLD TEMP	EXH MFLD PRES	ENGINE OUTLET TEMP	COMPRESSOR OUTLET PRES	COMPRESSOR OUTLET TEMP
1,800	765	62.2	116.0	1,182.2	54.4	898.7	66	377.9
1,700	757	63.0	115.5	1,205.6	51.3	924.2	66	376.4
1,600	740	62.1	110.5	1,229.8	46.9	953.8	65	373.1
1,500	718	60.1	110.5	1,269.8	41.7	997.3	63	368.6
1,400	687	57.1	104.8	1,305.3	37.1	1,039.1	59	361.2
1,300	630	51.1	100.0	1,329.9	30.7	1,073.3	53	343.2
1,200	503	37.8	94.6	1,323.0	20.5	1,093.4	39	294.0
1,100	421	29.5	89.9	1,331.8	14.6	1,124.3	31	261.9

ENGINE SPEED	ENGINE POWER	WET INLET AIR VOL FLOW RATE	ENGINE OUTLET WET EXH GAS VOL FLOW RATE	WET INLET AIR MASS FLOW RATE	WET EXH GAS MASS FLOW RATE	WET EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)	DRY EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)
RPM	BHP	CFM	CFM	LB/HR	LB/HR	FT3/MIN	FT3/MIN
2,100	765	1,773.1	4,456.7	7,651.1	7,914.1	1,665.8	1,531.1
2,000	765	1,708.3	4,321.2	7,353.7	7,611.9	1,602.2	1,470.6
1,900	765	1,646.8	4,189.6	7,068.0	7,322.3	1,541.3	1,411.9
1,800	765	1,585.7	4,103.4	6,804.2	7,056.4	1,485.2	1,358.3
1,700	757	1,522.6	4,007.3	6,514.6	6,763.5	1,423.7	1,298.8
1,600	740	1,437.3	3,862.1	6,138.9	6,382.1	1,343.4	1,222.6
1,500	718	1,325.4	3,668.2	5,645.6	5,880.9	1,237.9	1,121.5
1,400	687	1,212.9	3,450.1	5,151.2	5,377.0	1,131.8	1,021.6
1,300	630	1,058.8	3,075.3	4,479.6	4,685.8	986.3	885.8
1,200	503	825.8	2,422.2	3,477.8	3,643.0	766.8	687.0
1,100	421	666.2	1,995.6	2,802.5	2,942.7	619.4	552.2

Heat Rejection Data Top

ENGINE SPEED	ENGINE POWER	REJECTION TO JACKET WATER	REJECTION TO ATMOSPHERE	REJECTION TO EXH	EXHAUST RECOVERY TO 350F	FROM OIL COOLER	FROM AFTERCOOLER	WORK ENERGY	LOW HEAT VALUE ENERGY	HIGH HEAT VALUE ENERGY
RPM	BHP	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN
2,100	765	10,126	3,816	31,293	16,884	4,294	8,196	32,444	80,614	85,875
2,000	765	9,847	3,771	30,587	16,605	4,219	7,735	32,444	79,214	84,383
1,900	765	9,621	3,663	29,913	16,323	4,153	7,418	32,444	77,970	83,058
1,800	765	9,479	3,635	29,655	16,425	4,118	7,137	32,444	77,306	82,350
1,700	757	9,314	3,720	29,393	16,524	4,066	6,805	32,095	76,344	81,326
1,600	740	9,076	3,702	28,771	16,452	3,970	6,456	31,401	74,542	79,406
1,500	718	8,887	3,728	27,930	16,334	3,841	5,834	30,447	72,120	76,826
1,400	687	8,720	3,770	26,821	15,978	3,687	5,288	29,146	69,227	73,744
1,300	630	8,153	3,786	24,347	14,682	3,368	4,363	26,717	63,239	67,365

Emissions Data Top

Units Filter All Units

DIESEL

RATED SPEED NOMINAL DATA: 2100 RPM

ENGINE POWER	BHP	765	574	383	191	76.5
PERCENT LOAD	%	100	75	50	25	10
TOTAL NOX (AS NO2)	LB/HR	9.33	4.31	2.42	1.80	1.75
TOTAL CO	LB/HR	0.39	0.26	0.29	0.59	0.62
TOTAL HC	LB/HR	0.05	0.10	0.10	0.09	0.08
TOTAL CO2	LB/HR	823	655	462	253	140
PART MATTER	LB/HR	0.07	0.07	0.09	0.18	0.06
OXYGEN IN EXH	%	10.8	12.2	13.6	15.0	16.8
DRY SMOKE OPACITY	%	0.5	0.6	1.0	2.7	1.2
BOSCH SMOKE NUMBER		0.18	0.33	0.65	1.63	0.83

RATED SPEED POTENTIAL SITE VARIATION: 2100 RPM

ENGINE POWER	BHP	765	574	383	191	76.5
PERCENT LOAD	%	100	75	50	25	10
TOTAL NOX (AS NO2)	LB/HR	10.07	4.65	2.61	1.94	1.89
TOTAL CO	LB/HR	0.74	0.48	0.55	1.11	1.15
TOTAL HC	LB/HR	0.09	0.19	0.19	0.17	0.16
PART MATTER	LB/HR	0.14	0.14	0.17	0.36	0.13

Regulatory Information Top

EPA TIER 2 **2006 - 2010**

GASEOUS EMISSIONS DATA MEASUREMENTS PROVIDED TO THE EPA ARE CONSISTENT WITH THOSE DESCRIBED IN EPA 40 CFR PART 89 SUBPART D AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. THE "MAX LIMITS" SHOWN BELOW ARE WEIGHTED CYCLE AVERAGES AND ARE IN COMPLIANCE WITH THE NON-ROAD REGULATIONS.

Locality	Agency	Regulation	Tier/Stage	Max Limits - G/BKW - HR
U.S. (INCL CALIF)	EPA	NON-ROAD	TIER 2	CO: 3.5 NOx + HC: 6.4 PM: 0.20

IMO II **2011 - ----**

GASEOUS EMISSIONS DATA MEASUREMENTS ARE CONSISTENT WITH THOSE DESCRIBED IN REGULATION 13 OF REVISED ANNEX VI OF MARPOL 73/78 AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. THIS ENGINE CONFORMS TO INTERNATIONAL MARINE ORGANIZATION'S (IMO) MARINE COMPRESSION-IGNITION EMISSION REGULATIONS.

Altitude Derate Data Top

STANDARD

ALTITUDE CORRECTED POWER CAPABILITY (BHP)

AMBIENT OPERATING TEMP (F)	30	40	50	60	70	80	90	100	110	120	130	140	NORMAL
ALTITUDE (FT)													
0	765	765	765	765	765	765	765	765	765	765	765	765	765
1,000	765	765	765	765	765	765	765	765	765	765	765	765	765
2,000	765	765	765	765	765	765	765	765	765	765	765	765	765
3,000	765	765	765	765	765	765	765	765	765	765	765	765	765
4,000	765	765	765	765	765	765	765	765	765	765	765	765	765
5,000	765	765	765	765	765	765	765	765	765	765	765	765	765
6,000	765	765	765	765	765	765	765	765	765	765	765	765	765
7,000	765	765	765	765	765	765	765	765	765	765	765	765	765
8,000	765	765	765	765	765	765	765	759	746	733	721	709	765
9,000	765	765	765	765	765	756	743	729	717	704	692	681	765
10,000	765	765	765	754	740	726	713	700	688	676	665	653	765
11,000	765	753	738	724	710	697	684	672	660	649	638	627	754
12,000	737	722	708	694	681	668	656	645	633	622	612	602	728
13,000	706	692	679	666	653	641	629	618	607	597	587	577	703
14,000	677	663	650	638	626	614	603	592	582	572	562	553	679
15,000	649	636	623	611	600	588	578	567	557	548	539	530	655

Cross Reference Top

Test Spec	Setting	Engine Arrangement	Engineering Model	Engineering Model Version	Start Effective Serial Number	End Effective Serial Number
0K4936	PP5364	2543817	E709	-	WJH00001	
0K4936	PP5364	3591886	E709	-	WJH00001	
0K4936	PP5364	3591886	E709	-	WRH00001	

NAP	NAP	3665522	E709	-	WJH00001
0K4936	PP5364	3665522	E709	-	WRH00001
4577273	PP7749	5181550	EE384	-	PK800001

Performance Parameter Reference Top

Parameters Reference: DM9600 - 12

PERFORMANCE DEFINITIONS

PERFORMANCE DEFINITIONS DM9600

APPLICATION: Engine performance tolerance values below are representative of a typical production engine tested in a calibrated dynamometer test cell at SAE J1995 standard reference conditions. Caterpillar maintains ISO9001:2000 certified quality management systems for engine test Facilities to assure accurate calibration of test equipment. Engine test data is corrected in accordance with SAE J1995. Additional reference material SAE J1228, J1349, ISO 8665, 3046-1:2002E, 3046-3:1989, 1585, 2534, 2288, and 9249 may apply in part or are similar to SAE J1995. Special engine rating request (SERR) test data shall be noted.

PERFORMANCE PARAMETER TOLERANCE FACTORS: Power +/- 3% Torque +/- 3% Exhaust stack temperature +/- 8% Inlet airflow +/- 5% Intake manifold pressure-gage +/- 10% Exhaust flow +/- 6% Specific fuel consumption +/- 3% Fuel rate +/- 5% Specific DEF consumption +/- 3% DEF rate +/- 5% Heat rejection +/- 5% Heat rejection exhaust only +/- 10% Heat rejection CEM only +/- 10%
Heat Rejection values based on using treated water.
Torque is included for truck and industrial applications, do not use for Gen Set or steady state applications.
On C7 - C18 engines, at speeds of 1100 RPM and under these values are provided for reference only, and may not meet the tolerance listed.
These values do not apply to C280/3600. For these models, see the tolerances listed below.

C280/3600 HEAT REJECTION TOLERANCE FACTORS: Heat rejection +/- 10% Heat rejection to Atmosphere +/- 50% Heat rejection to Lube Oil +/- 20% Heat rejection to Aftercooler +/- 5%

TEST CELL TRANSDUCER TOLERANCE FACTORS: Torque +/- 0.5% Speed +/- 0.2% Fuel flow +/- 1.0% Temperature +/- 2.0 C degrees Intake manifold pressure +/- 0.1 kPa
OBSERVED ENGINE PERFORMANCE IS CORRECTED TO SAE J1995 REFERENCE AIR AND FUEL CONDITIONS.

REFERENCE ATMOSPHERIC INLET AIR FOR 3500 ENGINES AND SMALLER SAE J1228 AUG2002 for marine engines, and J1995 JAN2014 for other engines, reference atmospheric pressure is 100 KPA (29.61 in hg), and standard temperature is 25deg C (77 deg F) at 30% relative humidity at the stated aftercooler water temp, or inlet manifold temp.
FOR 3600 ENGINES Engine rating obtained and presented in accordance with ISO 3046/1 and SAE J1995 JANJAN2014 reference atmospheric pressure is 100 KPA (29.61 in hg), and standard temperature is 25deg C (77 deg F) at 30% relative humidity and 150M altitude at the stated aftercooler water temperature.

MEASUREMENT LOCATION FOR INLET AIR TEMPERATURE Location for air temperature measurement air cleaner inlet at stabilized operating conditions.

REFERENCE EXHAUST STACK DIAMETER The Reference Exhaust Stack Diameter published with this dataset is only used for the calculation of Smoke Opacity values displayed in this dataset. This value does not necessarily represent the actual stack diameter of the engine due to the variety of exhaust stack adapter options available. Consult the price list, engine order or general dimension drawings for the actual stack diameter size ordered or options available.

REFERENCE FUEL DIESEL Reference fuel is #2 distillate diesel with a 35API gravity; A lower heating value is 42,780 KJ/KG (18,390 BTU/LB) when used at 15 deg C (59 deg F), where the density is 850 G/Liter (7.0936 Lbs/Gal).
GAS Reference natural gas fuel has a lower heating value of 33.74 KJ/L (905 BTU/CU Ft). Low BTU ratings are based on 18.64 KJ/L (500 BTU/CU FT) lower heating value gas. Propane ratings are based on 87.56 KJ/L (2350 BTU/CU Ft) lower heating value gas.

ENGINE POWER (NET) IS THE CORRECTED FLYWHEEL POWER (GROSS) LESS EXTERNAL AUXILIARY LOAD Engine corrected gross output includes the power required to drive standard equipment; lube oil, scavenge lube oil, fuel transfer, common rail fuel, separate circuit aftercooler and jacket water pumps. Engine net power available for the external (flywheel) load is calculated by subtracting the sum of auxiliary load from the corrected gross flywheel out put power. Typical auxiliary loads are radiator cooling fans, hydraulic pumps, air compressors and battery charging alternators. For Tier 4 ratings additional Parasitic losses would also include Intake, and Exhaust Restrictions.

ALTITUDE CAPABILITY Altitude capability is the maximum altitude above sea level at standard temperature and standard pressure at which the engine could develop full rated output power on the current performance data set.
Standard temperature values versus altitude could be seen on TM2001.
When viewing the altitude capability chart the ambient temperature is the inlet air temp at the compressor inlet.
Engines with ADEM MEUI and HEUI fuel systems operating at conditions above the defined altitude capability derate for atmospheric pressure and temperature conditions outside the values defined, see TM2001.
Mechanical governor controlled unit injector engines require a setting change for operation at conditions above the altitude defined on the engine performance sheet. See your Caterpillar technical representative for non standard ratings.

REGULATIONS AND PRODUCT COMPLIANCE TMI Emissions information is presented at 'nominal' and 'Potential Site Variation' values for standard ratings. No tolerances are applied to the emissions data. These values are subject to change at any time. The controlling federal and local emission requirements need to be verified by your Caterpillar technical representative.
Customer's may have special emission site requirements that need to be verified by the Caterpillar Product Group engineer.

EMISSION CYCLE LIMITS: Cycle emissions Max Limits apply to cycle-weighted averages only. Emissions at individual load points may exceed the cycle-weighted limit.

EMISSIONS DEFINITIONS: Emissions : DM1176

EMISSION CYCLE DEFINITIONS
1. For constant-speed marine engines for ship main propulsion, including,diesel-electric drive, test cycle E2 shall be applied, for controllable-pitch propeller sets test cycle E2 shall be applied.
2. For propeller-law-operated main and propeller-law-operated auxiliary engines the test cycle E3 shall be applied.
3. For constant-speed auxiliary engines test cycle D2 shall be applied.
4. For variable-speed, variable-load auxiliary engines, not included above, test cycle C1 shall be applied.

HEAT REJECTION DEFINITIONS: Diesel Circuit Type and HHV Balance : DM9500

HIGH DISPLACEMENT (HD) DEFINITIONS: 3500: EM1500

RATING DEFINITIONS: Agriculture : TM6008
Fire Pump : TM6009
Generator Set : TM6035
Generator (Gas) : TM6041
Industrial Diesel : TM6010
Industrial (Gas) : TM6040
Irrigation : TM5749
Locomotive : TM6037
Marine Auxiliary : TM6036
Marine Prop (Except 3600) : TM5747
Marine Prop (3600 only) : TM5748
MSHA : TM6042
Oil Field (Petroleum) : TM6011
Off-Highway Truck : TM6039
On-Highway Truck : TM6038

SOUND DEFINITIONS: Sound Power : DM8702
Sound Pressure : TM7080

Date Released : 07/10/19

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL ("DNREC")

ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT

Pursuant to 7 Del. C. Chapter 79

FILING STATUS:

This Background Statement is being filed with DNREC because:

☒ 1. It is an initial application for a new permit (or permits) and the applicant or applicant company has not held a permit issued by DNREC for a period of 5 or more years [See 7 Del. C. § 7902(a) and (b)];

☐ 2. It is required on an annual basis because the applicant or applicant company has been designated a chronic violator pursuant to 7 Del. C. § 7904 [See 7 Del. C. § 7902(a)(7) and (b)(2)]; or

☐ 3. It is required on an annual basis as the applicant or applicant company has been found guilty, pled guilty or no contest to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment as defined in 7 Del. C. § 7902(c) [See 7 Del. C. § 7902(a)(7) and (b)(2)].

APPLICANT OR APPLICANT COMPANY'S NAME OR COMPANY'S NAME FILING STATEMENT	Bunting and Murray Construction Corporation
DATE OF APPLICATION OR DATE OF STATEMENT	9/24/2021
PERMIT(S) BEING APPLIED FOR OR STATEMENT FOR FILING STATUSES 2 OR 3	☐ **Permit Type(s)** Air Program Application to Operate ☐ **Statement for filing Statuses 2 or 3—If filing under these statuses, attach a statement of the date of designation as Chronic Violator or the date of Conviction/Plea.**
OTHER DNREC PERMITS HELD	☐ **N/A – No other permits held with DNREC** ☒ **List of all DNREC permits currently held with dates of issuance and expiration attached.**

ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT

Please note: Companies filing statements pursuant to Chapter 79 have the right to identify information to be afforded confidential status pursuant to 7 Del. C. § 7903(b) and the requirements set forth in Section 6, "Requests for Confidentiality" of the DNREC *Freedom of Information Act Regulation*.

PROVIDING ALL OF THE INFORMATION REQUESTED IN THIS FORM SATISFIES THE REQUIREMENTS OF 7 DEL. C. CHAPTER 79 ("ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT") UNLESS THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL ("DNREC") OR THE DELAWARE DEPARTMENT OF JUSTICE DETERMINES THAT ADDITIONAL SUBMISSIONS ARE NECESSARY. FAILURE TO PROVIDE THE INFORMATION REQUESTED OR PROVIDING ERRONEOUS INFORMATION IS GROUNDS FOR DENYING OR REVOKING AN ENVIRONMENTAL PERMIT/APPROVAL/LICENSE, AND FOR CIVIL AND/OR CRIMINAL PENALTIES.

A. **(Authority – 7 Del. C. § 7902(a)(1&2) & § 7905)** Attach a complete list (full names) of all current members of the applicant company's board of directors, all current corporate officers, all persons owning more than 20% of the applicant's stock or other resources, all subsidiary/affiliated companies with type of business performed, street addresses, all parent companies with addresses, all companies with which the applicant's company shares two or more members of the board of directors, and the name(s) of the person(s) serving as the applicant's local chief operating officer(s) with respect to each facility covered by the permit in question or for the statement required for filing Statuses 2 or 3. [Note: For companies that do not have a *facility* located in Delaware, no listing for the local chief operating officer(s) is required].

- ☒ Information attached
- ☐ Information attached, except for local chief operating officer as there is no facility located in the State of Delaware.

B. **(Authority - 7 Del. C. § 7905)** Please check one of the following selections below, showing type of ownership for the applicant or applicant/statement company:

☐	Proprietorship	List the state, county, book record and page number where the certificate is found (Attach hereto).
☐	Partnership	List the state, county, book record and page number where the certificate is found (Attach hereto).
☒	Corporation (LLCs included)	List the city, state, date of incorporation, corporation file number, current corporate standing, registered agent, and address of the registered agent (Attach hereto).
☐	Municipality	
☐	Public Institution/ Government Agency	
☐	Other	_____

C. **(Authority - 7 Del. C. § 7902(a)(3) & § 7905)** Have any of the following been issued to or agreed to by the applicant or applicant/statement company, any employee, person, entity, or subsidiary/affiliated company, specified in response to Item A, for violation of any environmental statute, regulation, permit, license, approval, or order, regardless of the state in which it occurred, during the five years prior to the date of this application/statement

OFFENSE	YES	NO
Notice of Violation(s)		X
Administrative Order(s)		X
Administrative Penalty(ies)		X
Civil Action(s)		X
Civil Penalty(ies)		X
Civil and/or Administrative Settlement Agreement(s)		X
Permit/License/Approval Revocation		X
Arrest(s)		X
Conviction(s)		X
Criminal Penalty(ies)		X
Criminal Plea Bargain		X

D. **(Authority - 7 Del. C. § 7902(a)(3), (a)(4) & § 7905)** If you answered "yes" to any of the actions listed in Item C above for the applicant or applicant company or any other person identified in Item A, attach a description of the incidents or events leading to the issuance of each action, regardless of the state in which it occurred, for the 5 years prior to the date of the statement, and the disposition of each action, what state the action/offense occurred in, and any actions that have been taken to correct the violations that led to such enforcement action.

☒ N/A

☐ Information attached

E. **(Authority - 7 Del. C. § 7902(a)(5) & § 7905)** Attach a description of any felony or other criminal conviction for a crime involving harm to the environment or violation of environmental standards of any person or entity identified in Item A above that resulted in a fine greater than $1,000 or a sentence longer than 7 days, regardless of whether such fine or sentence was suspended.

☒ N/A

☐ Description attached

F. **(Authority - 7 Del. C. § 7902(a)(6) & § 7905)** Attach copies of any and all settlements of environmental claims involving the applicant, associated with actions identified in response to Item D above, whether or not such settlements were based on agreements where the applicant did not admit liability for the action.

☒ N/A

☐ Information attached

Items for Filing Statuses 2 or 3 Only

G. **(Authority - 7 Del. C. § 7902(a)(7) and § 7905)** If the applicant or applicant/statement company has been found guilty, pled guilty or no contest, to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment attach a summary of the events involved and a copy of the disposition of the action (*See 7 Del. C. § 7902(c) for definitions of "serious physical injury" or "serious harm to the environment" before answering this question.*)

☒ N/A

☐ Yes – Information Attached.

H. **(Authority - 7 Del. C. § 7902(a)(8))** – If the applicant or applicant/statement company has been designated a chronic violator under 7 Del. C. § 7904, a detailed written report from an independent inspector who has inspected the applicant's premises for the purpose of detecting potential safety and environmental hazards to employees and the surrounding community. The Secretary may waive the duty to submit a detailed written report upon a showing of good cause by the applicant. A showing by the applicant that the acts which caused it to be designated as a chronic violator did not jeopardize public health shall constitute "good cause" under this paragraph.

I. **(Authority - 7 Del. C. § 7902(a)(7))** – If the applicant or applicant/statement company has been designated a chronic violation under § 7904 of this Title, ***OR*** has been found guilty or pled no contest to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment, a statement made under oath by the applicant or applicant/statement company's local chief operating officer with respect to the facilities covered by the permit, stating that: (a) disclosures made by the applicant/reporting company under federal and state environmental statutes and regulations during the preceding calendar year have been, to the chief operating officer's knowledge, complete and accurate, and (b) that the facility has implemented policies, programs, procedures, standards or systems reasonably designated, in light of the size, scope, and nature of facility operations to detect deter and promptly correct any noncompliance with state environmental statutes and regulations. The statement filed pursuant to this paragraph shall include an acknowledgement by the affiant that intentionally false statements submitted in compliance with this paragraph constitute criminal perjury as defined at 11 Del. C. §§1221-1222.

STATE OF DELAWARE – DEPT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

ENVIRONMENTAL PERMIT BACKGROUND STATEMENT

CERTIFICATION

I HEREBY CERTIFY THAT I HAVE READ THE PRECEEDING SUBMISSION, HAVE PROVIDED ALL OF THE INFORMATION REQUESTED, AND THAT ALL OF THE INFORMATION PROVIDED IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Jay C Murray Pres — DATE: 9/30/21

SIGNATURE—APPLICANT OR
OFFICER OF APPLICANT / STATEMENT COMPANY

NAME: Jay C. Murray

TITLE: ~~President~~

COMPANY NAME: Bunting & Murray COnstruction Corporation

ADDRESS: 32924 Lighthouse RD

Selbyville DE 19975

TELEPHONE: 302-436-5144

FAX NUMBER:

REGISTERED AGENT NAME:

ADDRESS:

TELEPHONE:

FAX NUMBER:

SWORN TO AND SUBSCRIBED

BEFORE ME THIS 30th **DAY OF**

September, 2021.

Holly Jo Wingate
NOTARY PUBLIC SIGNATURE (SEAL)

HOLLY JO WINGATE
NOTARY PUBLIC
State of Delaware
My Commission Expires on Oct. 8, 2022

PRINTED NAME OF NOTARY PUBLIC

DE, Sussex
STATE / COUNTY

MY COMMISSION EXPIRES ON: 10/8/22

jmb:20-24.doc/Rev. 8/2012

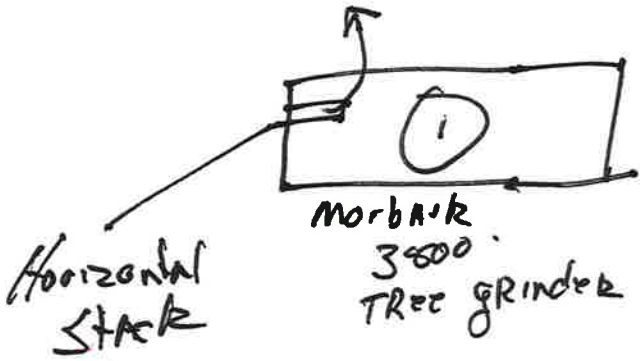
Bunting + Murray Construction Co. P.

DNREC – Air Quality Management Section
Application to Construct, Operate, or Modify Stationary Sources

Form AQM-2
Page 1 of 1

Process Flow Diagram

Sketch the Process Flow Diagram for the equipment or process being applied for. Include each emission unit and control device (even existing emission units that will not be modified by this application). You may identify each emission unit with a simple shape. Label each emission unit and control device with a unique identifier. Show the relationship between each emission unit and/or control device by drawing arrows between them to indicate the flow of air pollutants. List which application forms are included for each emission unit or control device below the shape representing each emission unit or control device . See http://www.delaware.gov/reg2/default.htm for example Process Flow Diagrams for common processes. If you already have a Process Flow Diagram for the equipment or process being applied for, you may attach it to the application instead of using this form.



AQM- 1
AQM- 3.3
AQM- 5

Generator/Engine Application

If you are using this form electronically, press F1 at any time for help

General Information

1. Facility Name: **Bunting & Murray Construction Corporation**
2. Equipment ID: **855210**
3. Manufacturer: **Morbark**
4. Model: **3800 XL**
5. Serial Number: **191-1059**
6. Maximum Power Rating of Engine: **765** horsepower
7. Standby Power Rating of Generator: **N/A** kilowatt
8. Date of Manufacture: **2016**
9. Installation Date: **02/14/2016**
10. Is the Equipment Being Applied For a Generator or an Engine? ☐ Generator ☒ Engine

If the equipment is a Generator, complete the rest of Question 10. If not, proceed to Question 11.

10.1. Is the Generator Existing or New? ☐ Existing ☐ New

10.2. Will the Generator Be Classified as an Emergency Generator or a Distributed Generator? ☐ Emergency ☐ Distributed

10.3. Has an Initial Notification Pursuant to 7 **DE Admin. Code** 1144 Been Submitted for this Generator? ☐ YES ☐ NO

If NO, include a copy of the Initial Notification with this application.

10.4. Have the Emissions From the Generator Been Certified to Meet the Currently Applicable US EPA Non-Road Emission Standards? ☐ YES ☐ NO

If YES, attach a copy of the Manufacturer's Certification. If NO, attach copies of any/all of the following: any maintenance or operating requirements/instructions provided by the generator manufacturer; the type, or a description, of any emission control equipment use; and/or emissions test data for the generator (such as a manufacturer's technical data sheet), any supporting documentation for any emission control equipment used, any supporting calculations, any quality control or assurance information, and any other information needed to demonstrate compliance with the requirements. Proceed to Question 11.

11. Primary Fuel: ☐ Natural Gas ☒ Diesel ☐ Propane ☐ Biodiesel ☐ Other (specify):

11.1. Maximum Annual Primary Fuel Consumption: **11,000 Gallons MMCF**

11.2. Heat Content of Primary Fuel: **139,000 BTU/Gallon BTU/CF**

11.3. Maximum Firing Rate: **126,000 MMCF/hr**

11.4. Percent Sulfur of Primary Fuel: **15 PPM or .000015** %

12. Secondary Fuel: ☐ Natural Gas ☐ Diesel ☐ Propane ☐ Biodiesel ☐ Other (specify): **N/A**

General Information

12.1.	Maximum Annual Secondary Fuel Consumption: **MMCF**
12.2.	Heat Content of Secondary Fuel: **BTU/CF**
12.3.	Maximum Firing Rate: **MMCF/hr**
12.4.	Percent Sulfur of Secondary Fuel: %
13.	Is SCR/NSCR/SNCR/Ammonia Injection Used: ☐ YES ☒ NO

Stack Information

14. How Does the Process Equipment Vent:
(check all that apply)
☒ Directly to the Atmosphere
☐ Through a Control Device Covered by Forms AQM-4.1 through 4.12

If any of the process equipment vents directly to the atmosphere proceed to Question 15. If the process equipment vents through a control device, provide the stack parameters on the control device form and proceed to Question 16.

15. Emission Point Name:

15.1. Stack Height Above Grade: **10 feet**

15.2. Stack Exit Diameter: **0.5 feet**
(Provide Stack Dimensions If Rectangular Stack)

15.3. Is a Stack Cap Present? ☐ YES ☒ NO

15.4. Stack Configuration: ☐ Vertical ☒ Horizontal ☐ Downward-Venting
(check all that apply) ☐ Other (Specify):

15.5. Stack Exit Gas Temperature: **°F**

15.6. Stack Exit Gas Flow Rate: **ACFM**

15.7. Distance to Nearest Property Line: **500+ ft**

15.8. Describe Nearest Obstruction: **N/A**

15.9. Height of Nearest Obstruction: **N/A ft**

15.10. Distance to Nearest Obstruction: **N/A ft**

15.11. Are Stack Sampling Ports Provided? ☐ YES ☒ NO

Monitoring Information

16. Will Emissions Data be Recorded by a Continuous Emission Monitoring System? ☐ YES ☒ NO

If Yes, Attach a Copy of the Continuous Emission Monitoring System Manufacturer's Specification Sheets

If YES, complete the rest of Question 16. If NO, proceed to Question 17.

16.1. Pollutants Monitored: ☐ VOCs ☐ HAPs ☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☐ NO_X ☐ SO_X ☐ Metals
☐ Other (Specify):

16.2. Describe the Continuous Emission Monitoring System:

Monitoring Information
16.3. Manufacturer:
16.4. Model:
16.5. Serial Number:
16.6. Will Multiple Emission Units Be Monitored at the Same Point? ☐ YES ☐ NO
If YES, complete the rest of Question 16. If NO, proceed to Question 17.
16.7. Emission Units Monitored:
16.8. Will More Than One Emission Unit be Emitting From the Combined Point At Any Time? ☐ YES ☐ NO
If YES, complete the rest of Question 15. If NO, proceed to Question 17.
16.9. Emission Units Emitting Simultaneously:

Visible Emissions Monitoring Information
For Primary Fuel
17. Proposed Technique Used to Monitor Visible Emissions: ☐ Opacity Monitor (COM) ☐ Manual (Method 9) ☒ Manual (Method 22) ☐ Other (Describe):
If an Opacity Monitor (COM) is used, complete the rest of Question 17. If not, proceed to Question 18.
17.1. Describe the Continuous Opacity Monitoring System:
17.2. Manufacturer:
17.3. Model:
17.4. Serial Number:
18. Proposed Frequency of Opacity Monitoring: **Daily while in use**
For Secondary Fuel. If no Secondary Fuel is used, proceed to Question 20.
19. Proposed Technique Used to Monitor Visible Emissions: ☐ Opacity Monitor (COMs) ☐ Manual (Method 9) ☐ Manual (Method 22) ☐ Other (Describe):
If an Opacity Monitor (COMs) is used, complete the rest of Question 19. If not, proceed to Question 20.
19.1. Describe the Continuous Opacity Monitoring System:
19.2. Manufacturer:
19.3. Model:
19.4. Serial Number:
20. Proposed Frequency of Opacity Monitoring: **Daily while in use**

Voluntary Emission Limitation Request Information

21.	Are You Requesting Any Voluntary Emission Limitations to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.?	☐ YES ☒ NO
If YES, complete the rest of Question 21. If NO, proceed to Question 22.		
21.1.	Describe Any Proposed Emission Limitations:	

Voluntary Operating Limitation Request Information

22.	Are You Requesting Any Voluntary Operating Limitations to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.?	☐ YES ☒ NO
If YES, complete the rest of Question 22. If NO, proceed to Question 23.		
22.1.	Describe Any Proposed Operating Limitations:	

Additional Information

23.	Is There Any Additional Information Pertinent to this Application?	☐ YES ☒ NO
If YES, complete the rest of Question 23.		
22.1.	Describe:	

Bunting and Murray Construction Corporation

Board of Directors

Jay C. Murray	Chairman
C. Coleman Bunting	Secretary and Treasurer
Clifton Murray	
Carlton Murray	

Corporate Officers

Jay C. Murray	President
C. Coleman Bunting	Secretary and Treasurer

Local Chief Operating Officer: Jay C. Murray President

840024[illegible]

JAN 24 [illegible]

[illegible] SECRETARY OF STATE

CERTIFICATE OF INCORPORATION

OF

BUNTING & MURRAY CONSTRUCTION CORPORATION

FIRST. The name of this Corporation is BUNTING & MURRAY CONSTRUCTION CORPORATION

SECOND. Its registered office in the State of Delaware is to be located at R.D. 1, Box 140 in Selbyville, County of Sussex

The registered agent in charge thereof is the corporation itself

at same address as above

THIRD. The nature of the business and the objects and purposes proposed to be transacted, promoted and carried on, are to do any or all the things herein mentioned, as fully and to the same extent as natural persons might or could do, and in any part of the world, viz:

> The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the general Corporation Law of Delaware.

FOURTH. The total number of shares of stock which this corporation is authorized to issue is two hundred (--200--) shares without par value.

FIFTH. The names and mailing addresses of each of the incorporator or incorporators are as follows:

Name	Mailing Address
Mary-Beth Pepper	P.O. Box 151, Georgetown, DE 19947
Louise Cook	P.O. Box 151, Georgetown, DE 19947
Lisa Kim Palmer	P.O. Box 151, Georgetown, DE 19947

SIXTH. The Directors shall have power to make and to alter or amend the By-Laws; to fix the amount to be reserved as working capital, and to authorize and cause to be executed, mortgages and liens without limit as to the amount, upon the property and franchise of this Corporation.

With the consent in writing, and pursuant to a vote of the holders of a majority of the capital stock issued and outstanding the Directors shall have authority to dispose, in any manner, of the whole property of this corporation.

The By-Laws shall determine whether and to what extent the accounts and books of this corporation, or any of them, shall be open to the inspection of the stockholders; and no stockholder shall have any right of inspecting any account, or book, or document of this Corporation, except as conferred by the law or the By-Laws, or by resolution of the stockholders.

The stockholders and directors shall have power to hold their meetings and keep the books, documents and papers of the corporation outside of the State of Delaware, at such places as may be from time to time designated by the By-Laws or by resolution of the stockholders or directors, except as otherwise required by the laws of Delaware.

It is the intention that the objects, purposes and powers specified in the third paragraph hereof shall, except where otherwise specified in said paragraph, be nowise limited or restricted by reference to or inference from the

terms of any other clause or paragraph in this certificate of incorporation, but that the objects, purposes and powers specified in the third paragraph and in each of the clauses or paragraphs of this charter shall be regarded as independent objects, purposes and powers.

WE, THE UNDERSIGNED, for the purpose of forming a Corporation under the laws of the State of Delaware, do make, file and record this Certificate, and do certify that the facts herein stated are true; and we have accordingly hereunto set our respective hands and seals.

Dated at Georgetown, Delaware

January 23, 1984

In the presence of

Marilyn R. Stevenson

Mary-Beth Pepper (SEAL)
Mary-Beth Pepper

Louise Cook (SEAL)
Louise Cook

Lisa Kim Palmer (SEAL)
Lisa Kim Palmer

STATE OF DELAWARE)
) ss.
COUNTY OF SUSSEX)

BE IT REMEMBERED, that on this 23rd day of January A.D. 1984, personally appeared before me Marilyn R. Stevenson, a Notary Public in and for the State and County aforesaid, Mary-Beth Pepper, Louise Cook and Lisa Kim Palmer parties to the foregoing Certificate of Incorporation, known to me personally to be such, and I having first made known to them and each of them the contents of said cer- cate, they did each severally acknowledge that they signed, sealed and delivered the same as their voluntary act and deed, and each deposed that the facts therein stated were truly set forth.

GIVEN under my hand and seal of offic the day and year aforesaid.

(NOTARY SEAL)

Notary Public

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "BUNTING & MURRAY CONSTRUCTION CORPORATION" IS DULY INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL CORPORATE EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWENTY-FIFTH DAY OF FEBRUARY, A.D. 2021.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "BUNTING & MURRAY CONSTRUCTION CORPORATION" WAS INCORPORATED ON THE TWENTY-FOURTH DAY OF JANUARY, A.D. 1984.

Jeffrey W. Bullock, Secretary of State

2026550 8300

SR# 20210272387

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 202556196

Date: 02-25-21

Service Request# **20210272387**

State of Delaware

SECRETARY OF STATE
DIVISION OF CORPORATIONS
P.O. BOX 898
DOVER, DELAWARE 19903

RECEIVED MAR 1 2021

8473419
DOUGLAS BROWN
32924 LIGHTHOUSE RD
SELBYVILLE, DE 19971

02-25-2021

DESCRIPTION		AMOUNT
2026550 - BUNTING & MURRAY CONSTRUCTION CORPORATION 4100H Plain Copy History 1 Copies		
	Plain Copy Fee	$12.00
2026550 - BUNTING & MURRAY CONSTRUCTION CORPORATION Entity Status - Short Form		
	Certification Fee	$50.00
	TOTAL CHARGES	$62.00
	TOTAL PAYMENTS	$62.00
	BALANCE	$0.00